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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,870	12/10/2003	David Charles Hinde	011644-0307261	6715

909 7590 09/28/2005

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EXAMINER

SERGEANT, RABON A

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,870

Applicant(s)

HINDE ET AL.

Examiner

Rabon Sergeant

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. It is requested that applicants amend the specification to reflect the correct status of the parent application, in accordance with Office practice.
2. Claims 49, 54, 55, 63 and 64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within claim 49, the language, "molecular weight ranging 500 to 2000 Daltons", is grammatically incorrect. There appears to be a language omission.

Within claim 54, the structure has been improperly represented with double bonds.

Within claim 63, applicants have failed to specify the type and basis for the claimed percent value.

Within claim 64, the language, "at least one bases", is grammatically incorrect and lacks full antecedence from claim 46.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 46-69 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,776,287. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to water-soluble packaging comprising the same polyurethane. Furthermore, the claimed process is obvious in view of the patented claims, because one of ordinary skill in possession of the polyurethane would have been in possession of the process for making it.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 46-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomaides et al. ('840) in view of Markusch et al. ('852).

Thomaides et al. disclose the production of water-soluble films from polyurethane aqueous dispersions. The polyurethane dispersions are produced by incorporating potential ionic hydrophilic groups into the polyurethane and neutralizing them with a base to yield an ionic group containing polyurethane which readily disperses in water. See abstract and columns 2-5. Thomaides et al. further provide important guidance at column 2, lines 55+, wherein patentees state that difunctional reactants must be used in order to prevent crosslinking. Additionally, patentees disclose at column 5, lines 40+ that the flexibility of the film may be controlled by judicious selection and application of the neutralizing base. Furthermore, the position is taken that the films are soluble at temperatures within the claimed range, because the prior art films and instant films contain equivalent hydrophilic groups in overlapping contents. It is further noted that the prior art specifically teaches against the use of higher than difunctional reactants, which would produce crosslinks. Therefore, one would expect the respective films to have similar, if not equivalent, solubility characteristics. Lastly, the position is taken that the term, "packaging", without more is insufficient to distinguish the instant claims from the prior art, because any application of the film is fairly considered to constitute a form of "packaging".

7. Though Thomaides et al. disclose the use of ethylene oxide containing reactants, including those that have molecular weights that significantly overlap those of applicants, patentees fail to describe that the use of such reactants will contribute nonionic hydrophilic

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groups to the polyurethane. Furthermore, Thomaides et al. fail to disclose the use of a prepolymer process to produce the polyurethane aqueous dispersion. However, the use of the oxyethylene groups to contribute hydrophilic and water dispersible characteristics to polyurethanes and the use of prepolymer processes to produce them was known at the time of invention. This position is supported by the detailed description of Markush et al. See columns 5-10. It is additionally noted that Markusch et al. teach at column 16, lines 34+ that the properties of the composition may be modified by the incorporation of vinyl polymers.

8. Therefore, the position is taken that one of ordinary skill in the art seeking a water soluble polyurethane would have been motivated to follow the teachings of the primary reference and further to incorporate the aforementioned techniques for producing enhanced water dispersible polyurethanes, as taught by Markush et al., into the teachings of the primary reference, so as to arrive at the instant invention.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.


RABON SERGENT
PRIMARY EXAMINER

R. Sergent
September 24, 2005